

26

**B**

**A New Principle of Phase Analysis of Polymorphic Substances on the Basis of Surface Tension.** (In Russian.) S. S. Vrazovskij and P. M. Chetaev. *Doklady Akademii Nauk SSSR* (Reports of the Academy of Sciences of the USSR), new ser., v. 67, July 1, 1949, p. 101-104.

Thorough investigation of the temperature dependence of surface tension for a series of liquids indicates the presence of a sharp change in surface tension at points corresponding to phase transformations. This phenomenon may be used as a basis for a new method for phase analysis of the above.

COMMON ELEMENTS

COMMON VARIABLE DATA

ISSN-SLA METALLURGICAL LITERATURE CLASSIFICATION

FROM SUMMARY

COLLATION

DATE

NO

BY

FOR

FILE

NO

BY

FOR

FILE

60-66. "Metalization" of Liquid Selenium. (In Russian). B. S. Vrayvskii and B. D. Luft. *Zhurnal Fizicheskoi Khimii* (Journal of Physical Chemistry), v. 22, April 1948, p. 409-418.

Transformation into the metallic state of "glassy" selenium in various N-containing organic bases. An abnormality of temperature curves coinciding with an abnormality of electrical conductivity was noted and a hypothesis based on the possible formation of selenides is proposed. 13 ref.

VRBA, A.

"Use of electron tubes in experimental physics" by A.M. Bonc-  
Brujevic, Reviewed by A. Vrba. Jemna meck opt 5 no.3:103-104  
Mr '60.

KOPACOVA, L.; VRBA, C.

Studies on local anesthetics. Part 26. Cesk. farm. 14 no.6:  
322-326 Ag '65.

1. Katedra farmakodynamiky a toxikologie farmaceutické fakulty  
Univerzity Komenského, Bratislava a Státní veterinární ústav,  
sekcce kontroly léčiv, Brno. Submitted November 14, 1964.

KOPACOVA, L.; VRBA, C.

CSSR

Chair of Pharmacodynamics and toxicology of the pharmaceutical faculty, Komenius University, Bratislava, and State Veterinary Institute, section for the control of veterinary drugs, Brno (Katedra farmakodynamiky a toxikologie farmaceuticke fakulty UK v Bratislave, Statni veterinarni ustav, sekce kontroly veterinarnich lecu v Brno) (for both)

Bratislava, Farmaceuticky Obzor, No 1, 1963, pp 1-6

"A short Summary of Laboratory Methods to Evaluate the Depot-Local Anesthesia"

(2)

VRBA, C. APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001961210015-5

CZECHOSLOVAKIA

VODRAZKA, J., Docent Dr; VRBA, C., Dr; JELINEK, J., Dr.

Kosice (for Vodrazka); Brno (for Vrba); Prague (for Jelinek)

Prague, Veterinarstvi, No 3, 1963, pp 128-129

"Present State of Mass Production of Veterinary Medicines and Further Development in This Direction."

VRBA, C.

CZECHOSLOVAKIA / Organic Chemistry. Synthetic Organic  
Chemistry.

G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60921.

Author : Karel Palat, Ales Dekera, Cenek Vrba.

Inst : -

Title : Study of Local Anesthetics. X. Basic Complex  
Esters of Diphenylcarbamic Acids.

Orig Pub: Chem listy, 1957, 51, No 3, 563-567; Sb. chekhosl.  
khim. rabot, 1957, 22, No 3, 825-830.

Abstract: m-Iodophenylbutyl ester, yield 64%, boiling point  
131 to 132°/7 mm, and n-iodophenylbutyl ester,  
yield 76%, boiling point 104 to 106°/0.5 mm, were  
synthetized of corresponding amines. n-Bromophe-  
netole, boiling point 91 to 93°/5mm, was synthetized

Card 1/7

CZECHOSLOVAKIA / Organic Chemistry. Synthetic Organic  
Chemistry.

G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60921.

Abstract: of the aromatic halogen derivative with 0.15 mole of alkoxyaniline in the presence of 1g of active Cu in the duration of 3 to 6 hours to from 200 to 210° at a periodical addition of fresh catalyst; 2/ by alkylating 0.1 mole of oxy- or dioxydiphenylamine with 0.11 or 0.22 mole of diethylsulfate in the presence of 20%-ual KOH; 3/ by adding the Na salt (prepared by aging Na-alcoholate with 0.1 mole of the corresponding oxydiphenylamine in alcohol solution for 12 hours) to 0.11 mole of butyl iodide and boiling it 3 hours. The R-s and R's constituting the I, the yields by the methods 1, 2, and 3,

Card 3/7

CZECHOSLOVAKIA / Organic Chemistry. Synthetic Organic  
Chemistry.

G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60721.

Abstract: point; acid chlorides of substituted diphenyl-  
carbamic acids  $RC_6H_4N(C_6H_4R')COCl$  are produced;  
the R-s and R'-s, the yield in % and the melting  
points in °C (from alcohol) are presented in the  
following: 4- $C_2H_5O$ , H, 87, 126 to 127; 4- $C_4H_9O$ ,  
H, 86, 62; 4- $C_2H_5O$ , 4- $C_2H_5O$ , 76, 101; 4- $C_4H_9O$ ,  
4- $C_4H_9O$ , 76, 78.  $RC_6H_4N(C_6H_4R')COCH_2CH_2N(C_2H_5)_2$ -s  
(II) were prepared by boiling (1 hour) Na-diethyl-  
amineethylate with the corresponding acid chloride.  
The R-s and R'-s, the yield in %, the boiling  
points in °C/mm, and the melting points of the

Card 5/7







VRBA, C.; LEBDUSKA, J.; SEKERA, A.

Studies on local anesthetics; pharmacological evaluation of active  
basic esters of substituted carbamic acids. Cesk. farm. 1 no.10:554-  
563 1952. (CML 23:4)

1. Of the Institute of Pharmacology of the Veterinary School and of  
the Institute of Pharmaceutical Chemistry of Masaryk University, Brno.

SEREKA, A.; JAKUBEC, I.; KRAL, J.; VRBA, C.

Anesthesia with carbamic acid series preparation. Cas.cesk.lek.  
Ved.priloha 63 no.9-12:293-297 Dec 1950. (CML 20:9)

1. Of the Institute of Pharmaceutical Chemistry of Masaryk  
University in Brno and of Institute of Pharmacology of the  
Veterinary School in Brno.

KLIMES, B., doc. MVDr.; VRBA, Cenek, "VDr.; DOFEK, Rudolf, PhMr. CSc.;  
SLOVACEK, Stanislav, ~~promovaný~~ veterinární lékař

Biologic efficiency of nitrofurazone in relation to the stability  
of its aqueous solution. Veter medicina 9 no.1:39-42 Ja '64.

1. Chair of Poultry Diseases, Faculty of Veterinary Medicine, Brno  
and State Veterinary Institute, Department of Drug Control.

VIRISH, C. ENK  
C. ENK, VRDA

Local anesthetics. III. Basic esters of monoalkyl-  
bamic acids A. J. Sekera, Alois Borovanský, and C. Enk  
Věda (Masarykova Univerzita, Brno, Czech.) Chem. Listy 47  
1952, 47, 1202. 3-Diethylaminoethyl N  
alkylcarbamates (I) prepd. from alkyl isocyanates or by the  
Curtius degradation were inactive as local anesthetics. Some  
of them showed a slight sedative and hypnotic action upon  
white mice. Dialkyl sulfates and KOON gave MeNCO, b.  
42-5° (42%), and EtNCO, b. 59-61° (36%). BuI (0.25  
mole) refluxed 20-50 hrs. with 45 g. AgOCN in 200 ml.  
Et<sub>2</sub>O gave 30% BuNCO, b. 112-13°; Me(CH<sub>2</sub>)<sub>3</sub>CH:CH-  
(CH<sub>2</sub>)<sub>3</sub>NCO (II), b. 102-3°, was prepd. in 85% yield by  
boiling 2 hrs. 30 g. Me(CH<sub>2</sub>)<sub>3</sub>CH:CH(CH<sub>2</sub>)<sub>3</sub>COCl in 100  
ml. C<sub>6</sub>H<sub>6</sub> with 13 g. Na<sub>2</sub>S. The I were prepd. by refluxing  
0.25 mole RNCO 8-10 hrs. with 35.2 g. Et<sub>3</sub>NCH<sub>2</sub>CH<sub>2</sub>OH (III)  
in 100 ml. Et<sub>2</sub>O and distg. the mixt. in vacuo. The bases  
with HCl gave the HCl salt from Et<sub>2</sub>O. Me<sub>2</sub>CO. Alkyls, % yields, and b.p.s. of the I and m.p.s. of  
the HCl salts: Me, 62, b. 120°, 117-19°; Et, 77, b. 108°,  
110°; Pr, IV, 26, b. 116°, 113-14°; 48-50°, 91-2°; Bu, 90,  
122°, 97-9°; iso-Pr, 41, b. 110°, 126°; sec-Bu, 20, b.  
122°, 112-14°; Me<sub>2</sub>C, 25, b. 101°, 157°. C<sub>6</sub>H<sub>5</sub>CHCH<sub>2</sub>-  
Br and AgOCN gave CH<sub>2</sub>:CHCH<sub>2</sub>NCO which yielded 26%  
CH<sub>2</sub>:CHCH<sub>2</sub>NHCO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NEt<sub>3</sub>, b. 121-3° (HCl salt, m.  
126-7°), hydrogenated in EtOH over 20% Pd-C, to a  
compd. b. 135-40°, the const., with the exception of the  
b.p., and the infrared spectrum of which agree with those of  
IV. Heating 5 g. III with 5 g. Me<sub>2</sub>CHCH<sub>2</sub>CON<sub>2</sub> in Et<sub>2</sub>O  
gave 19% iso-BuNHCO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NEt<sub>3</sub>, b. 148° (HCl salt, m.  
120-8°). Refluxing 8 g. II and 5 g. III 5 hrs. in 30 ml. C<sub>6</sub>H<sub>6</sub>  
gave Me(CH<sub>2</sub>)<sub>3</sub>CH:CH(CH<sub>2</sub>)<sub>3</sub>NHCO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NEt<sub>3</sub> (V); HCl  
salt, m. 103-10° (28% yield). Hydrogenation of V gave  
C<sub>10</sub>H<sub>21</sub>NHCO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NEt<sub>3</sub>; HCl salt, m. 110-10° (from  
ether CHCl<sub>3</sub>)  
M. Hudlický

VRBA, C.; CELADNIK, M.; PALAT, K.

Local anesthetics from the group of basic propiophenones. In German. p. 51.  
Vol. 1, 1958.

ACTA FACULTATIS PHARMACEUTICAE BRUNENSIS ET BRATISLAVENSIS. BRNO, Czechoslovakia.  
Vol. 1, 1958.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 1, January 1960.

Uncl.

(XII), 86%, m. 173° (from Me<sub>2</sub>CO-AcOH). The most interesting pharmacol. effect was shown by XI, which was twice as toxic as cocaine, but 50 times as effective in surface anesthesia as cocaine and 70 times as effective as procaine.



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**CIA-RDP86-00513R001961210015-5"**

**VRBA**  
 COUNTRY : Czechoslovakia G-2  
 CATEGORY :  
 ABS. JOUR. : RZKhim., No. 20 1959, No. 71492  
 AUTHOR : Sekera, A.; Pavlicek, R.; Vrba, C.  
 INST. : Not given  
 TITLE : A Study of Local Anesthetics. Article IX.  
 Synthesis of Some New  $\beta$ -Alkoxyethoxy-carbanilates and of Aminated  $\beta$ -Alkoxyethoxyinchonamides.  
 ORIG. PUB. : Bull Soc chim. France, 1959, #2, 401-404 \*  
 ABSTRACT : In order to determine the relation between the chemical structure and local anesthetic activity, following substituted carbanilates were synthesized:  $RC_6H_4NHCOOCH_2CH_2N(C_2H_5)_2$  (Ia-e, here and subsequently a:  
 c: R = o- $C_2H_5OCH_2CH_2O$ , d: R = m- $C_2H_5OCH_2CH_2O$ , and e: R = p- $C_2H_5OCH_2CH_2O$ ), analogues of sevicaine bases (II a-b), and also sevicaine (IIc-base). Among I-chlorides the most active were found to be Ia and Ic chlorides, which had activities (surface

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CARD: 1/9

\* Ceskosl. farmac., 1958, 7, #8, 448-450.

COUNTRY : Czechoslovakia  
 CATEGORY :  
 ABST. JOUR. : RZKhim., No. 20 1959, No. 71492  
 AUTHOR :  
 INST. :  
 TITLE :

ORIG. PUB. :

ABSTRACT



II a: R' = OCH<sub>3</sub>  
 b: R' = OC<sub>2</sub>H<sub>5</sub>  
 c: R' = C<sub>2</sub>H<sub>5</sub>  
 a-c: R'' = CONHCH<sub>2</sub>CH<sub>2</sub>N(C<sub>2</sub>H<sub>5</sub>)<sub>2</sub>

CH<sub>3</sub>OCH<sub>2</sub>CH<sub>2</sub>Cl (24% yield, b.p. 93°) was synthesized by reacting (CH<sub>3</sub>)<sub>2</sub>SO<sub>4</sub> with HOCH<sub>2</sub>CH<sub>2</sub>Cl. The latter when heated for 15 hours with NaI and acetone, gives CH<sub>3</sub>OCH<sub>2</sub>CH<sub>2</sub>I (50% yield, b.p. 137-138°). The reaction of SOCl<sub>2</sub> with C<sub>2</sub>H<sub>5</sub>OCH<sub>2</sub>CH<sub>2</sub>OH in the presence of dimethylaniline yields

CARD: 3/9

COUNTRY : Czechoslovakia G-2  
 CATEGORY :  
 ABS. JOUR. : RZKhim., No. 20 1959, No. 71/92  
 AUTHOR :  
 INST. :  
 TITLE :  
 ORIG. PUB. :  
 ABSTRACT : 158/0.05; c, 64, 138/0.1; d, 71, 187/0.75,  
 m.p. 54.50; e, 85, 172/0.25, m.p. 720; 1Va,  
 78, 110/0.16; b, 71, 112/0.11; c, 72,  
 93/0.05; d, 59, 110/0.05; e, 86, 101/0.1;  
 Va, 65, 82/0.07; b, 82, 91/0.11; c, 71,  
 90/0.21; d, 81, 125/0.06; e, 63, 96/0.07.  
 In order to prepare I, V was heated in  
 moisture-free toluene with an equimolar  
 quantity of  $(C_2H_5)_2NCH_2CH_2OH$ . Subsequent  
 addition of toluene solution of HCl pre-  
 cipitated I-chloride. If one fails to ob-  
 tain chloride crystals the toluene solution  
 may be extracted with 10% HCl. The extract  
 CATD: 5/9

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COUNTRY : Czechoslovakia G-2  
 CATEGORY :  
 ABS. JOUR. : RZKhim., No. 20 1959, No. 71492  
 AUTHOR :  
 INST. :  
 TITLE :  
 ORIG. PUB. :  
 ABSTRACT : may be then rendered alkaline with a solution of  $\text{NaHCO}_3$ . The base may be finally extracted with ether and transformed into a picrate. Listed below are % yield of I and m.p., °C of its picrate (from alcohol): a. 13, 113; b. 13, 99; c. 22, 83; d. -, -, chlorides yield 48%, m.p. 94° (from acetone-ether), e. -, -, chlorides yield 52%, m.p. 119° (from acetone-ether).  $(\text{C}_2\text{H}_5)_2\text{NCH}_2\text{CN}$  in toluene (b.p. 61-63°/14 mm) was reduced by the action of powdered Na and alcohol.  $(\text{C}_2\text{H}_5)_2\text{NCH}_2\text{CH}_2\text{NH}_2$  (VI) was thus obtained, 48% yield, b.p. 142-144°. The rate of reduction

CARD: 6/9

COUNTRY	:	Czechoslovakia	G-2
CATEGORY	:		
ABS. JOUR.	:	AZKhim., No. 20 1959, No.	71492
AUTHOR	:		
INST.	:		
TITLE	:		
ORIG. PUB.	:		
ABSTRACT	:	<p>POCL<sub>3</sub> was distilled off and moisture-free toluene was added to the residue. The mixture was then again distilled. The yield of 2-chlorocinchonine (VII-acid) was 86%, m.p. 82° (not verified, from toluene). Into a solution of an alcoholate composed of 24 moles Na, and 50 ml n-C<sub>4</sub>H<sub>9</sub>OH, CH<sub>3</sub>OCH<sub>2</sub>CH<sub>2</sub>H (X) or C<sub>2</sub>H<sub>5</sub>COH<sub>2</sub>CH<sub>2</sub>OH were added 7g of diethyl aminoethylamide-VII, the mixture was then heated for 2.5 hours, and the corresponding II was isolated. (X was synthesized from CH<sub>3</sub>OH and ethylene oxide in the presence of conc. H<sub>2</sub>SO<sub>4</sub>, b.p. 123-125°).</p>	
CARD:		8/9	

COUNTRY : Czechoslovakia  
CATEGORY :

G-2

ABST. JOUR. : RZKhim., No. 20 1959, No. 71492

AUTHOR :  
INST. :  
TITLE :

ORIG. PUB. :

ABSTRACT : Listed below are <sup>the</sup> substance, % yield, m.p.  
OC (from petroleum ether), and chlorides  
n.p., OC (from benzene-petroleum ether):  
IIa. 82, 79, 138; b. 81, 83.5 (not verified),  
95; c. 69, 62.5 (not verified), 94. If not  
specified the melting points cited were cor-  
rected. Determination of M.P. was done in a  
Koffler block. Article X, see RZKhim,  
1958, #18, 60921.

-- G. Braz

CARD: 9/9

26

KOPACOVA, L.; VRBA, C.; PIVNIK, J.; SKARDA, R.

Topical tolerance to local anesthetic effect of prolonged-action benzocaine solution behaving as a microcrystalline implant. Cesk. fysiол. 9 no.1:74-85 Ja 60.

1. Odd. farmakodynamiky a toxikologie farmaceuticke fak. MU. Ustav farmakologie a Ustav patologicke anatomie vet. fak. VSZL, Brno.  
(ANESTHETICS LOCAL pharmacol.)



VRBA, C.; KOPAC, F.; BOBOVANSKY, A.; SOVA, J.

Certain pharmacological properties of local anesthetics from the diethylaminoacetanilide group. Cesk. fysiол. 9 no.11:98-99 Ja 60.

1. Ustav farmakologie vet. fak. VSZL. Ustav farmaceuticke chemie farmaceut. fak. MU, Brno.

(ANESTHETICS LOCAL pharmacol.)

VRBA, C.

SEKERA, A.; HRUBY, J.; JARUSMO, I.; KRAL, J.; VRBA, C.; LEDUSKA, J.

Local anesthetics. Basic esters of substituted carbamic acids [with summary in English]. Sbor. Chekh. khim. rab. 18 no. 6: 870-879 D '53.  
(MLRA 7:6)

1. Department of Pharmaceutical Chemistry of the University, and  
Pharmacological Department of the Veterinary School, Brno.  
(Anesthetics) (Carbamic acid) (Esters)

VRBA, C., SEKERA, A., BOROVANSKY, A.

Vrba, C., Sekera, A., Borovansky, A. "Studies in local anesthetics III. Basic esters of monoalkylcarbamic acids. p. 591 CASOPIS PRO PESTOVANI MATEMATIKY. CZECHOSLOVAK MATHEMATICAL JOURNAL. Vol. 47, no. 4, Apr. 1953, Praha, Czechoslovakia.

SO: Monthly List of East European Accessions, LC., Vol. 3, No. 1, Jan. 1954, Uncl.

VRBA, C.

Czechoslovakia

GA: 47:12635

with J. LEBDUSKA and A. SEKERA

High Vet. School and Masaryk Univ., Brno, Czech.

"Local anesthetics. IV. Pharmacological evaluation of active basic esters of substituted carbamates."

Ceskoslov. farm. 1, 554-63 (1952); cf. C.A. 47, 12302e.

VRBA, G.,  
SEKERA, A., Chem. Listy 45, 90 (1951)

VRBA, C.

A. SEKERA, Chem. Listy 44, 275-6, 1950

DOFEK, B.; VRBA, C.

Studies of local anesthetics. XXIII. Basic acetyl mesidine. Coll Cz  
(EBAI 10:9)  
Chem 25 no.6:1596-1601. Je '60.

1. Institut für pharmazeutische Chemie, Masaryk-Universität, und  
Institut für Pharmakologie, tierärztliche Fakultät, Landwirtschaftliche  
Hochschule, Brno.

(Local anesthesia) (Trimethylaniline) (Acetyl group)

VRBA, E.

TECHNOLOGY

Periodical: ZELEZNICAR. No. 12, Dec. 1958.

VRBA, E. Fulfilling and exceeding tasks in railroad electrification prescribed by the 11th Congress of the Communist Party of Czechoslovakia. p. 12.

Monthly List of East European Accession (EEAI) LC, Vol. 8, no. 3  
March 1959 Unclass.



VRBA, E.

Only conscientious work will prevent accidents caused by the disconnection of trains.

P. 148, (Zeleznicar) No. 6, June 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) Vol. 6, No. 11 November 1957

VRBA, E.

Area railroad transportation hubs in the new organization of railroad management. p. 98.

ZELEZNICNI DOPRAVA A TECHNIKA. (Ministerstvo dopravy)  
Praha, Czechoslovakia  
Vol. 7, no. 4, 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11.  
Nov. 1959  
Uncl.

VRBA, E.

We have not written in vain. p.88

ZELEZNICAR (Ministerstvo dopravy) Praha, Czechoslovakia, No. 4, Apr. 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, no. 7, July 1959. Uncl.

VRBA, E.

Looking forward to the 4th Congress of Trade-unions. p. 113.

ZELEZNICAR. (Ministerstvo dopravy) Praha, Czechoslovakia, No. 5, May 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 7, July 1959  
UNCL

VRBA, E.

Observing time limits. p. 126.

ZELEZNICAR. (Ministerstvo dopravy) Praha, Czechoslovakia, No. 5, May 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 7, July 1959  
UNCL

VRBA, E.

We must devote more care to the introduction of new technology. p. 195.

ZELEZNICNI DOPRAVA A TECHNIKA. (Ministerstvo dopravy)  
Praha, Czechoslovakia  
Vol. 7, no. 7, 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11.  
Nov. 1959  
Uncl.

VRBA, E.

The High Tatras express their thanks. p. 234.

ZELEZNICAR. (Ministerstvo dopravy) Praha, Czechoslovakia. No. 9, Sept. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11,  
November 1959.

Uncl.

VRBA, E.

Machines which help men.

P. 180, (Zeleznicar) No. 7, July 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Acessions (EEAI) Vol. 6, No. 11 November 1957



VRBA, E.

In the footsteps of old rationalizers.

P. 198, (Zeleznicar) No. 8, Aug. 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) Vol. 6, No. 11 November 1957

VRBA, E.

"Railroad employees of Nove Zamky are expanding the heavy-tonnage hauling." p.240

ZELEZNICAR, (Ministertvo dopravy) Praha, Czechoslovakia No. 11, Nov. 1958

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 6, June 1959  
Uncl.

VRBA, E.

"Experiences from mass meetings cannot be forgotten." p. 141.

ZELEZNICAR. (Ministerstvo dopravy). Praha, Czechoslovakia, No. 6, June 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,  
August 1959.  
Uncla.

VRBA, E.

Technical and economic problems in the foreground. p. 172

ZELEZNICAR. Praha, Czechoslovakia. No. 7, July 1959

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959  
Uncl.

VRBA, Eugen (Praga); VLASAK, Frantisek, dr. (Praga)

An interview with Comrade Dr. Frantisek Vlasak, the new minister of transportation of Czechoslovakia. Vasut 8 no.3:2 30Ap '58.

1. "Vasut" pragai tudositoja. (for Vrba). 2. Csehszlovak Köztársaság közlekedésügyi minisztere (for Vlasak).

VRBA, E.

Do we observe technological processes? p. 177

ZELEZNICAR. Praha, Czechoslovakia. No. 7, July 1959

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959  
Uncl.

VRPA, E.

The problems of design documentation.

P. 2. (ZELEZNICAR) (Praha, Czechoslovakia) No. 1, Jan. 1958

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958

VRBA, E.

The care of man; health care of railroad employees in Hungary.

p. 256 (Zeleznicar. Vol. 5, nos. 1-6, 8; Jan.-June, Aug. 1955. No. 10, Oct. 1957.  
Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) IC. Vol. 7, no. 2,  
February 1958



VRBA, E.

Books and press in the service of Czechoslovak transportation. Tr. from the Czech.

p. 285 (Kozlekedestudományi Szemle. Vol. 7, no. 7/8, July/Aug. 1957. Budapest, Hungary)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2, February 1958

VRPA, E.

"The most beautiful gift."

p. 322 (Zeleznicar) Vol. 7, no. 12, Dec. 1957  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

VRBA, E.

"The Opening of the First Section of Electric Railroad Transportation in Slovakia."  
p. 242, (Zeleznice, Vol. 3, no. 10, 1953, Praha)

SO: Monthly List of East European Accessions, Vol. 3, No. 3, March <sup>1954</sup>~~1953~~, Uncl.

VRBA, E.

For a higher level of railroad transportation. p. 250.  
ZELEZNICE, Prague, Vol. 4, no. 10, Oct. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6,  
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June 1956, Uncl.

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9 no.3:18-19 Je '64.

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Green light for the construction of the broad-gauge railroad track Matovce - Haniska. Zel dop tech 12 no. 3:  
70-71 '64.

1-22-40-05 SW 10-2 ZPA/S-2 EPA/W EWP(V)/EWT(m)/EWP(b) EWP(e) EWP(t)  
 05-10-10/21-17-Feb-10 Z/0012/65/000/001/0025/0033  
 ACCESSION NR: AP5007770

AUTHOR: Tyrolerova, P. (Member of silicate technology dept); Vrbacky, L.;  
 Hanykyr, V. (Member of silicate technology dept)

TITLE: Effect of calcinating barium titanyl oxalate on the properties of  $BaTiO_3$

SOURCE: Silikaty, no. 1, 1965, 25-33

TOPIC TAGS: barium titanyl oxalate, calcination, barium titanate, titanium  
 oxalate, barium oxalate, sintered titanate

ABSTRACT: In order to study the effects of heat and rapidly rising temperatures on the properties of  $BaTiO_3$  produced by pyrolysis of barium titanyl oxalate,  $BaTiO(C_2O_4) \cdot 4H_2O$ , many samples of the oxalate were placed in crucibles in furnaces heated 50C above the calcination temperature for three hours. After cooling at temperatures of 650, 750, 850, 950, 1050 and 1150C in silite laboratory furnaces, tests were made at temperatures increasing at the rate of 3C per minute and also at 10C/min. The product was a clean white powder without any discernible cry-

in a hydraulic press since 1955  
Card 1/2

ACCESSION NR: AP5007770

which tended to decline in calcinates produced at higher temperatures. Six tablets from each grade were then sintered in a horizontal tube furnace with the temperature increasing by 600C per hour to 1325, 1350 and 1375C, where it was maintained for 15 and for 180 minutes. At the contact surfaces the tablets became slightly gray to yellow-gray and the exposed surfaces became gray to blue-gray. Then using the test-

ASSOCIATION: Katedra technologie silikatu, VSCHT, Prague (Silicate technology  
Department, VSCHT)

SUBMITTED: 05Aug65

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OTHER: 006

Metabolic activity of the brain in relation to muscular  
exercise. I. R. Vítu (Inst. Arteriolog. Perif. Krank-  
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APPROVED FOR RELEASE: 09/01/2001

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SO: Monthly List of East European Accessions. (EEAL), LC, Vol. 5, No. 6 June 1956, Uncl.

*Vrba, Jan*  
Czechoslovakia/Radiophysics - Superhigh Frequencies, I-11

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35440

Author: Vrba, Jan

Institution: None

Title: Critical Frequencies of Waveguides of Simplest Forms

Original

Periodical: Slaboprůdy obzor, 1956, 17, No 3, Priloha praxe, P9-P10; Czech

Abstract: None

Card 1/1



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Prace na revolverovem soustruhu; [strucny prehled revolverovych soustruhu a navod k praci, urceny pro praxi a odborne skoleni.] V Praze, Prace, 1950. 143 p. (Technicke prirucky Prace, sv. 36) [Turret lathe practice; a brief survey of turret lathes and a handbook for machine shop practice and training. illus., subject index]

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Med. Effects of organic silicon compounds. Jiri Vrba (Klin.  
chorob z povolani, Prague). *Pracezi Lekarsk* 8, 210-15  
(1966).—Halogenosilanes, alkylhalogenosilanes, and alkoxy-  
silanes show a considerable corrosive effect, both as liquids  
and fumes, affecting the respiratory tract, eyes, and skin and  
causing org. changes and changes of the blood picture.  
Polymers, i.e., silicon oils, are practically nontoxic and do not  
reveal any biol. effect, with the exception of the volatile  
MeSiCl<sub>3</sub>SiMe<sub>3</sub>, which produces a slight irritation of the lungs,  
eyes, and skin. J. J. Urbanc

VRBA, Jiri, MUDr.

Effect of work in preparation of silicon on health of workers.  
Pracovní lek. 8 no.4:291-294 Aug 56.

1. Z klin. chorob z povolani a hyg. prace v Praze, prednosta  
prof. Dr. J. Teisinger.

(SILICON, injurious effects,  
on workers (Cz))

(OCCUPATIONAL DISEASES,  
silicon-induced lesions (Cz))

Z/63/60/000/04/12/022

AUTHOR: Vrba, Jan, Engineer

TITLE: Wire Ball Bearings<sup>1</sup>

PERIODICAL: Jemná Mechanika a Optika, 1960, No 4, pp 120-122

TEXT: The author discusses the advantages and application possibilities of ball bearings the tracks of which consist of four wires. Wire ball bearings are suitable in cases where a small profile of ball bearing is required at a large diameter of the ball race. Figure 1 shows the section of a ball bearing with four tracks. The four wires have a hardness of 450 to 500 kg/mm<sup>2</sup> according to Brinell, and are enclosed by metal rings (Figure 2). Such wire ball bearings are used in the production of precise optical instruments, the largest designs have a groove diameter of more than 6,000 mm and a loading capacity of several thousand kilograms. Figure 3 shows the constructional design of a ball bearing, depending upon the axial force (P), the radial force (Q), and the most unfavorable force (M). One ring has to be dismountable to make possible the assembly; Figure 4 shows the solution of this problem by extension of the inner screw ring. Two or more series of balls are arranged within the bearing in the case of heavy loads (Figure 5). In case of a prevalent axial load in one direction a track arrangement

Card 1/2

Wire Ball Bearings

Z/030/60/000/04/12/022

according to Figure 6 is possible. Bearings exposed to significant radial forces are equipped with an outer ring split at its radial surface; both parts of the ring are screwed together (Figure 7). Wire ball bearings are also applicable in straight-line transmission. Figure 8 shows the arrangement used in case of any type of spatially acting forces. The author underlines the required precision in machining the bearing parts and describes the methods of embedding wires into the rings. The wires are either free, or embedded in grooves (Figure 9), the advantages of these designs are mentioned. Then the article describes the assembly of wire ball bearings and the possible defects occurring, e.g. by deformations of wire, etc. The wire cross-section is shown in Figure 10; the relation between the width of the groove (b) and the diameter of the wire (d) depends on the bearing dimensions and its arrangement, and upon the load ( $b : d = 1 : 3$  in case of a rolled groove, and  $b : d = 1 : 2$  to  $1 : 3$  in case of a rough grinded groove). Finally the article deals with constructional problems of the ball bearing base, with the assembly and the starting of wire ball bearings, with lubrication problems and with questions of packing. There are 10 diagrams and 3 East German references.

ASSOCIATION: Meopta - Praha (Meopta Plant, Prague)

SUBMITTED: January 6, 1960

Card 2/2

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Protection of ground water. p. 255.

VODNI HOSPODARSTVI. (Ministerstvo energetiky a vodniho hospodarstvi  
a Vedecka technicka spolecnost pro vidni hospodarstvi) Praha,  
Czechoslovakia, No. 6, June 1959.

Monthly List of East European Accession (EEAI), LC Vol. 9, no. 2,  
Feb. 1960.

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Hydrogeological research in the German Democratic Republic. p. 552.

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No. 12, Dec. 1959.

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Feb. 1960

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"Notes on the relation between the hydro-geological conditions and the techniques of extraction and distribution of mineral waters in the Podebrady Spa"

Vestnik. Praha, Czechoslovakia. Vol. 34, no. 2, 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas



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Jemna mech opt 7 no.12:374-377 D '62.

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5000. The comparison of transmission of video signals by a frequency-modulated wave and by a Subcarrier Carrier, 15, No. 1, 1957, p. 107.

Frequency-modulated u.h.f. links are compared with amplitude-modulated systems, it being found that the former are preferable for transmission of video signals between a studio and a transmitter, or between various television centres. Calculation of the spectrum of a f.m. wave is carried out assuming that a video signal is equivalent to a system of rectangular pulses having a rise time corresponding to the highest transmitted frequency and that the modulation of frequency by rectangular pulses may be represented by two sinusoidal generators. The generator of frequency  $f_1$  is switched on during mark periods, while the generator of frequency  $f_2$  is on during spaces. The bandwidth determined by this method is considerably less than that calculated by the standard procedure. The validity of the method is restricted, but its correctness for television signals is corroborated by some experiments on a photo-modulated reflex klystron and by a comparison with the exact solution.

VRGA, J.

# CZECH

1. The device is a link for the transmission of signals between two stations. It consists of a transmitter and a receiver.

A detailed description of the device is given in the following. The transmitter consists of a reflex klystron in which the modulating video signal is applied to the reflector. The modulation is linear within a bandwidth of 10 MHz. The receiver consists of a crystal-crystal diode mixer, a 75 MHz IF amplifier, a detector and a limiter, having a total bandwidth of 10 MHz. The device is designed to operate in the VHF band. The maximum range of the device is 100 km. The device is designed to operate in the VHF band. The maximum range of the device is 100 km.

1. The device is a link for the transmission of signals between two stations. It consists of a transmitter and a receiver.

VRBA, 2

CZECHOSLOVAKIA/Radio Physics - Application of Radiophysical Methods I-9

Abs Jour : Ref Zhur - Fizika, No 8, 1958, No 18775

Author : Nemocek Jan, Vrba Jan

Inst : Not Given

Title : DT11 Radio Relay Line for Transmission of Television

Orig Pub : Slaboproudy obzor, 1957, 18, No 12- 839-851

Abstract : Description of a radio relay line, developed in the Research Institute of Communication Engineering imeni Popov. The line operates in the six centimeter band. The transmitter employs a reflex klystron of two watts capacity. The length of the line is 80 km, the buildup time of the pulse is less than 65 millimicroseconds.

Card : 1/1

33



Microwave Measurements (Cont.)

CZECH/1747

part the theory necessary to facilitate an understanding of the text is explained. The author thanks leading personalities of the Výzkumný ústav pro sdělovací techniku A.S. Popova (A.S. Popov Research Institute for Information Technique) in Prague, the Ústav pro výzkum radiotechniky (Institute for Radiotechnical Research) in Opocinek, and Docent V. Tysl, Engineer, for their help in preparing the book. There are 117 references, of which 14 are Soviet, 18 Czech, 1 Slovak, 75 English, and 9 German.

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AVAILABLE: Library of Congress (QC535.V7)

Card 6/6

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6-19-59

CZECHOSLOVAKIA

VIRBA, J; MADLO, Z; LEDNER, E.

1. Chair of Hygiene of the Faculty of General Medicine of Charles University (Katedra hygieny fakulty všeobecného lékařství KU), Prague; 2. Section of Hygiene Work ICHS of the Middle Bohemian Kraj (Odbor hygieny práce ICHS Středočeského kraje), Prague

Prague, Ceskoslovenska Hygiena, No 8, 1964, pp 436-440

"Styrene, Ethylbenzene and Mandelic Acid Metabolism in Rats."

CZECHOSLOVAKIA UDC 616.633.588.11-074(:565.33):612.015.31(567.538.141

VRBA, Jiri; MADLO, Zdenek; Chair of Hygiene, Faculty of General Medicine, Charles University (Katedra Hygieny Fak. Vseob. Lek. KU), Prague, Head (Vedouci) Prof Dr P. MACUCH; Krajska Station of Hygiene and Epidemiology, Kraj of Central Bohemia (KHES Stredoceskeho Kraje), Prague, Director (Reditelka) Dr M. REJSKOVA.

"Interference of Certain Metabolites of Styrene, Whose Presence is Assumed, in the Polarographic Determination of Mandelic Acid in Urine."

Prague, Pracovni Lekarstvi, Vol 18, No 6 - 7, Aug 66, pp 265-266

Abstract [Authors' English summary modified]: During the polarographic determination of mandelic acid by the method of Bister and Wolf, an interference by styreneglycol was observed in 77% of the experiments, and acetophenone in 98%. Phenylglyoxal administered to rats is transformed to benzaldehyde positive substances; these interfere with polarography, although the original substance does not. The metabolism of styrene is discussed, and the possibility of finding a suitable analytical method for its study is evaluated. 1 Table, 4 Western, 2 Czech references. (Manuscript received 16 Jul 65).

1/1

Hygiene and Epidemiology, Prague, Director (Reditelka) Dr M. REJSKOVA; Chair of Hygiene (Katedra Hygieny) Head (Vedouci) Prof Dr P. MACUCH, and Chair of Pathological Physiology) Head (Vedouci) Docent Dr T. TRAVNICEK, Faculty of General Medicine, Charles University (Fakulta Vseobecného Lekarství KU), Prague.

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"Effect of Styrene on Glutathione in the Liver of Rats."

Prague, Pracovni Lekarstvi, Vol 18, No 6 - 7, Aug 66, pp 267-268

Abstract [Authors' English summary modified]: The effect of styrene, benzene, and toluene on glutathione in the liver of rats was investigated. Decrease of glutathione was found in experiments in vivo after 120 min following an s.c. injection of 0.2 ml of styrene, or benzene. Toluene was not active. Styrene poisoning does not induce an increase in oxidized glutathione. 1 Table, 11 Western, 1 Japanese reference. (Manuscript received 16 Jul 65).

1/1

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HERCOG, Frantisek, promovany geolog; VRBA, Jaroslav, promovany geolog .

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\*

VRANA, Milan, promovany geolog; VRBA, Jaroslav, promovany geolog

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1. Katedra hygieny fakulty vseob. lek. v Praze, prednosta prof. MUDr. Milos Kredba.

(INDUSTRIAL MEDICINE educ)

VRBA, Jan, inz.

Wire ball bearings. Jemna mech opt 5 no.4:120-122 Ap '60.

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